

Holderness Residential Small Wind Energy System Regulation

Section 1 Purpose:

It is the purpose of this ordinance to regulate the safe, effective and efficient use of small wind energy systems to reduce the on-site consumption of utility supplied electricity. It is recognized that Holderness, New Hampshire residents value the natural beauty of our area. A balance is sought between this value and the fact that wind power is an important and inevitable part of our future.

Section 2 Findings:

Holderness, New Hampshire finds that wind energy is an abundant, renewable, and nonpolluting energy resource and that its conversion to electricity will reduce our dependence on nonrenewable energy resources and decrease the air and water pollution that results from the use of conventional energy sources. Therefore, we find that it is necessary to create proper guidelines and permits for small wind energy systems to enable a clean, renewable energy resource to be utilized in a cost-effective and timely manner and to minimize impact on the surrounding abutters and neighbors.

Section 3 Definitions:

Small Wind Energy System: A residential wind energy conversion system consisting of a wind turbine, a tower, and supporting structures (e.g. guy wires, if needed), and associated control or conversion electronics, which has a rated capacity of not more than 25Kw and which is primarily intended for on site consumption.

Tower Height: The distance from the base to the system hub shall be no greater than 150 feet in height or no greater than 35 feet above any surrounding canopy.

Total Height: The vertical distance from the ground level to the tip of the rotating blades at their highest point.

Section 4 Permitted Use & Requirements:

Small wind energy systems shall be a permitted use in all zoning classifications and subject to the requirements set forth below:

Tower Height: Wind energy systems shall be no greater than 150 ft above the tower base or 35 feet above the average surrounding tree canopy.

Blade Location: The wind energy system blade shall not extend over sidewalks, parking lots or driveways.

Set-back and Location: No part of the small wind energy system, including guy wire anchors, may extend closer than 35' from any property line including the road frontage. Setback of the small wind energy system (excluding guy wire supports) must measure at least 1.1 times the total height of the small wind energy system.

Rated Capacity: A small wind energy system shall not have a rated generation capacity greater than 25kW.

Multiple Systems: Multiple wind energy systems are not permitted on a property.

Noise: Noise from small wind energy systems shall not exceed 60 dBA, as measured at the property boundary. The level, however, may be exceeded during short-term events such as utility outages and/or severe wind storms.

Aesthetics: All measures will be taken so as the system shall have as little adverse visual impact on the surrounding area and neighbors in particular, as possible. The color must be non-reflective and neutral. The less visible and the more the structure blends with the surroundings the better. All temporary or permanent signs are prohibited on the small wind energy system except for manufacturer's standard logo on the turbine or appropriate warning signs on the base of the tower not to be positioned more than 10 feet from the ground. The small wind energy system shall not be artificially lit unless required by the Federal Aviation Administration.

Adverse visual impact may occur when a project is out of context with its surroundings. When assessing the visual impacts of a wind energy system, both the visual characteristics of the area in which the system will be sited, as well as the visual characteristics of the areas from which the system will be seen, will be considered. Where potential undue adverse visual impact of a system is of concern, a view shed analysis, using a Geographic Information System (GIS) technology or something similar may be required at the expense of the applicant.

Utility Notification: If the owner's intent is to connect the small wind energy system to the power grid, proof of public utility acceptance shall be required prior to installation.

Decommissioning: If the wind energy system is not in use for a period of 1 year, it must be disassembled by the property owner unless a specific and time-bound extension is provided by the selectmen. The wind energy system shall be maintained in good condition and good repair at all times. Any structure that is or becomes in disrepair such that it does not meet its intended usage in the opinion of the selectmen, must be repaired within 45 days. If the owner fails to comply, the selectmen shall have the tower removed at the owners' expense and any associated legal fees charged to the owner.

Automatic Over-speed Controls: All small wind energy systems shall be equipped with manual (electronic or mechanical) and automatic over-speed controls to limit the blade rotation speed to within the design limits of the system.

State & Federal Requirements: Evidence shall be provided that the system meets all federal and state regulations.

Monitoring Equipment: To determine the efficacy of installing a small wind energy system, a limit of three meteorological towers, including guy wires and monitoring equipment, may be erected per lot at any given time. These structures will conform to all setback and height regulations for a small wind energy system and may remain in place for a period not to exceed 18 months with minimal permitting processes and fees. Fees and permitting to be determined by the Selectmen and will require a building permit.

Modification: Existing small wind energy systems will require a building permit for any changes which result in an increase in size, height, width or sound output. Any change in location of the small wind energy system will be deemed to be a new installation.

Site Preparation: To prevent erosion and to maintain the aesthetics surrounding a proposed tower location, minimal clearing of trees and other natural vegetation is encouraged.

Steep Slopes Locations: For small wind energy systems located on any geologic prominence whose side(s) are incorporated in the Steep Slopes Protection Area, the highest point of a rotating blade may not extend above the highest point of ground on the geologic prominence on which the system is sited unless the applicant can demonstrate that minimal adverse impact is created.